

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 4569-3 (1985): Scissors, eye, Part 3: Scissors, Tenotomy
[MHD 5: Ophthalmic Instruments and Appliances]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



IS : 4569 (Part 3) - 1985

Indian Standard
SPECIFICATION FOR SCISSORS, EYE
PART 3 SCISSORS, TENOTOMY
(*Second Revision*)

UDC 615.472.4 : 617.761-089.85-72



© Copyright 1986

INDIAN STANDARDS INSTITUTION

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR SCISSORS, EYE

PART 3 SCISSORS, TENOTOMY

(*Second Revision*)

Eye Surgery Instruments Sectional Committee, CPDC 27

Chairman

DR K. LALL

Representing

Ministry of Health (DGHS), New Delhi

Members

DR P. M. KAPOOR (<i>Alternate to</i> Dr K. Lall)	
SHRI ARYA MUNI	Arya Muni & Co, Amritsar
COL M. S. BOPARAI	Ministry of Defence (DGAEMS), New Delhi
DR D. B. CHANDRA	Department of Health and Family Welfare, Government of U.P., Lucknow
DR DALJIT SINGH	Department of Health and Family Welfare, Government of Punjab, Chandigarh
DR CHARANJIT LAL (<i>Alternate</i>)	
SHRI K. H. GANDHI	Ministry of Defence (DGI)
SHRI V. K. BAJPAI (<i>Alternate</i>)	
DR A. K. GUPTA	Delhi Administration (M & PH Department, Delhi
SHRI P. Y. KALELKER	Kalelker Surgical Industries, Bombay
SHRI Y. P. KALELKER (<i>Alternate</i>)	
DR A. KRISHNA MURTHY	Department of Health and Family Welfare, Government of Karnataka, Bangalore
DR H. THIMMAIAH (<i>Alternate</i>)	
SHRI A. K. MAITI	Directorate of Industries, Government of West Bengal, Calcutta
SHRI S. GUPTA (<i>Alternate</i>)	
SHRI K. MANIVANNAN	Directorate of Industries, Government of Haryana, Chandigarh
DR I. P. SINGH PARMAR (<i>Alternate</i>)	
DR D. L. MARIA	Directorate of Medical Education and Research, Bombay
DR S. N. PATEL (<i>Alternate I</i>)	
DR S. K. DHAWAN (<i>Alternate II</i>)	

(*Continued on page 2*)

© Copyright 1986

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
SHRI G. S. MATHARU	Indo-German Surgical Corporation, Bombay
SHRI MOHINDER LAL	Punjab Surgical Instruments Manufacturers & Suppliers Association, Jalandhar
SHRI SUBIT MUKERJI	H. Mukerji & Banerjee Surgicals Pvt Ltd, Calcutta
SHRI SUDHIR MUKERJI (<i>Alternate</i>)	
DR R. MUSALAPPA REDDY	Municipal Administration Department, Government of Andhra Pradesh, Hyderabad
SHRI C. NARAYANA RAO	Bharat Electronics Ltd, Machilipatnam
SHRI A. M. JOSE (<i>Alternate</i>)	
SHRI SURINDER NAYYAR	Hansraj Nayyar (Surgical) Pvt Ltd, Amritsar
SHRI VIJAY NAYYAR (<i>Alternate</i>)	
SHRI B. L. PAHWA	Surgical Manufacturers & Traders Association, Delhi
SHRI BALWANT SINGH (<i>Alternate</i>)	
SHRI B. L. PAHWA	Speedway Surgical Company, Delhi
SHRI VIPIN PAHWA (<i>Alternate</i>)	
SHRI K. L. PAHWA	Speedway Surgical Company, Ludhiana
SHRI P. S. PAHWA (<i>Alternate</i>)	
DR S. SATHIAVAKESAN	Health and Family Welfare Department, Government of Tamil Nadu, Madras
PROF (DR) P. SIVA REDDY	All India Ophthalmological Society, Madras
DR J. AGARWAL (<i>Alternate</i>)	
DR K. S. SUBRAHMANYAM	Health and Family Welfare Department, Government of Kerala, Trivandrum
DR M. V. JOHN (<i>Alternate</i>)	
SHRI P. R. T. THULASINGAM	Surgical Instruments Plant, IDPL, Madras
SHRI A. K. THANIKACHALAM (<i>Alternate</i>)	
DR A. S. SETHI,	Director General, ISI (<i>Ex-officio Member</i>)
Director (Consr Prods & Med Instrs)	

Secretary

SHRI M. K. BHATIA
Deputy Director (Consr Prods & Med Instrs), ISI

Indian Standard
SPECIFICATION FOR SCISSORS, EYE
PART 3 SCISSORS, TENOTOMY
(Second Revision)

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 25 November 1985, after the draft finalized by the Eye Surgery Instruments Sectional Committee had been approved by the Consumer Products and Medical Instruments Division Council.

0.2 This standard was first published in 1968 and revised in 1977. The present revision has been taken up to include certain modifications in order to bring the specification in line with the modern manufacturing practices. In the revised standard the non-functional dimensions have been rounded off. The tolerance for the functional dimensions have been modified keeping in view the present manufacturing technique. A clause on sampling and inspection has been added. The test methods have been brought in line with the test methods covered in other similar standards of eye surgery instruments.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

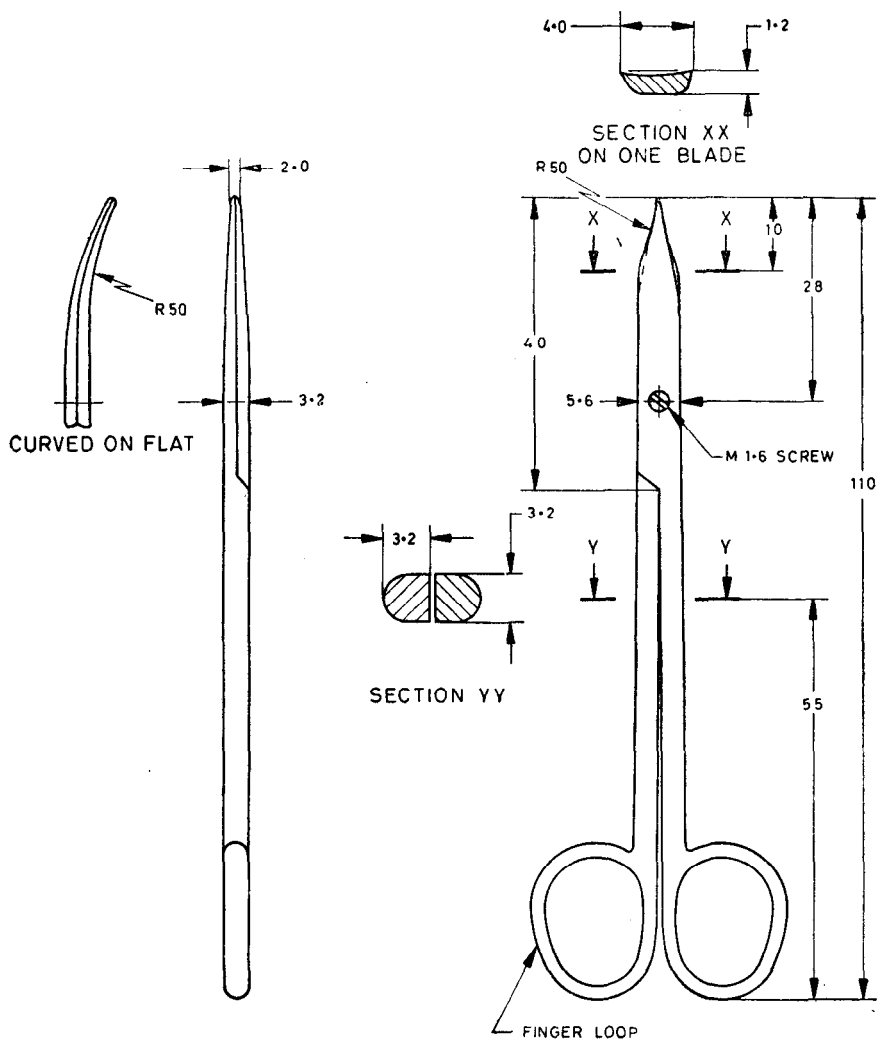
1. SCOPE

1.1 This standard covers dimensional and other requirements for tenotomy scissors used in eye surgery.

2. SHAPE AND DIMENSIONS

2.1 The shape and dimensions shall be as shown in Fig. 1.

*Rules for rounding off numerical values (revised).



*See IS : 3642-1966 'General requirements for surgical instruments'.

All dimensions in millimetres.

FIG. 1 SCISSORS, TENOTOMY

2.2 A deviation ± 2.5 percent shall be allowed on all dimensions.

3. MATERIAL

3.1 The material for scissors shall be stainless steel conforming to Designation 40Cr13 of IS : 6603-1972*.

3.2 The material for screw shall be stainless steel conforming to Designation 20Cr13 of IS : 6603-1972*.

4. REQUIREMENTS

4.1 The finger loops shall conform to IS : 3642-1978†.

4.2 The joints shall be of screw-recessed type conforming to IS : 3642-1978†.

4.3 The scissors shall be free from cracks, seams, burrs, flaws, pits and other defects.

4.4 The scissors shall be symmetrical and well-balanced.

4.5 The blade shall close fully and freely with a continuous pinch, without stiffness and excessive cross-over action. There shall be no play at the joint in closed position.

4.6 The edges shall be even and rounded except for the cutting edge which shall be sharp.

4.7 The cutting edge shall not have any feather and nick.

4.8 The scissors shall be polished bright and passivated.

5. HARDNESS

5.1 The scissors shall be hardened and tempered to give a hardness of 550 to 600 HV.

6. TESTS

6.1 **Performance** — The whole length of the cutting edges including the tips shall cut wet tissue paper, teased out cotton wool, fine hair, frayed lint and chamois leather accurately and cleanly, when worked with either right or left hand.

6.2 **Corrosion Resistance** — The scissors shall be tested in accordance with the method covered in IS : 7531-1975‡. The scissors shall not show any sign of corrosion after the test.

*Specification for stainless steel bars and flats.

†General requirements for surgical instruments (*first revision*).

‡Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments.

7. SAMPLING AND CRITERIA FOR CONFORMITY

7.1 A suitable sampling scheme and criteria for acceptance is given in Appendix A.

8. MARKING

8.1 Each scissors shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade-mark and in addition the words 'Stainless Steel' or letters 'SS'.

8.1.1 The scissors may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

9. PACKING

9.1 As agreed to between the purchaser and the supplier. The working end shall be suitably protected.

A P P E N D I X A

(Clause 7.1)

SAMPLING AND CRITERIA FOR CONFORMITY FOR SCISSORS

A-1. LOT

A-1.1 In any consignment, all the scissors produced from the same material under similar conditions shall constitute a lot.

A-2. The number of scissors to be selected from each lot shall depend upon the size of the lot and shall be in accordance with col 1 and 2 of Table 1.

A-2.1 These scissors shall be selected from the lot at random and in order to ensure the randomness of selection, procedures given in IS : 4905-1968* may be followed.

*Methods for random sampling.

TABLE 1 SCALE OF SAMPLING

LOT SIZE	SAMPLE SIZE
(1)	(2)
Up to 15	2
16 " 50	3
51 " 150	5
151 and above	8

A-3. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-3.1 All the scissors selected at random in accordance with col 1 and 2 of Table 1 shall be tested for shape and dimensions, requirements, hardness, performance tests and corrosion resistance. A scissor shall be considered as defective if it fails to meet any one or more of these requirements. A lot shall be considered as conforming to these requirements if none of the scissors in the sample is found to be defective in any of these tests.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²



INDIAN STANDARDS INSTITUTION

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 3 31 01 31, 3 31 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :

Telephone

*Western : Manakalaya, E9 MIDC, Marol, Andheri (East), 6 32 92 95
BOMBAY 400093

†Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, 36 24 99
Maniktola, CALCUTTA 700054

Southern : C. I. T. Campus, MADRAS 600113 41 24 42

Northern : B69 Phase VII, Industrial Focal Point, 8 73 28
S. A. S. NAGAR 160051 (Punjab)

Branch Offices :

'Pushpak' Nurmohamed Shaikh Marg, Khanpur, 2 63 48
AHMADABAD 380001 2 63 49

'F' Block, Unity Bldg. Narasimharaja Square, 22 48 05
BANGALORE 560002

Gangotri Complex, Bhadbhada Road, T. T. Nagar, 6 27 16
BHOPAL 462003

22E Kalpana Area, BHUBANESHWAR 751014 5 36 27

5-8-56C L. N. Gupta Marg, HYDERABAD 500001 22 10 83

R14 Yudhister Marg, C Scheme, JAIPUR 302005 6 98 32

117/418 B Sarvodaya Nagar, KANPUR 208005 4 72 92

Patliputra Industrial Estate, PATNA 800013 6 23 05

Hantex Bldg (2nd Floor), Rly Station Road, 32 27
TRIVANDRUM 695001

Inspection Office (With Sale Point) :

Institution of Engineers (India) Building, 1332 Shivaji Nagar, 5 24 35
PUNE 410005

*Sales Office in Bombay is at Novelty Chambers, Grant Road, 89 65 28
Bombay 400007

†Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep 27 68 00
Street, Calcutta 700072